Unit 4: Maintain Healthy, Safe and Secure Working Environment
Chapter 14: Workplace Quality Measures

1. Air and Water Quality Monitoring Process

- Air and water quality affect health, comfort, and productivity.
- Regular monitoring is necessary to maintain a **safe and hygienic workplace**.

➢ **Air Quality Monitoring**

- Use **air quality monitors** to detect:
  - Pollutants (CO_2, VOCs, dust, etc.)
  - Humidity and ventilation levels

➢ **Water Quality Monitoring**

- Regular **testing of drinking water** for:
  - pH level
  - Bacteria and germs
  - Heavy metals and harmful chemicals

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2. Guidelines for Clean Air and Clean Water

Clean Air Guidelines	Clean Water Guidelines
Install air purifiers and ventilation systems	Ensure clean drinking water filters are used
Plant indoor plants for natural air filtering	Regularly test and treat stored water
Avoid smoking or chemical use indoors	Store water in covered and clean containers
Maintain cleanliness to avoid dust buildup	Avoid open drains and water stagnation nearby

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3. Importance of Cleanliness at Workplace

- **Reduces health risks** like infections, allergies, and respiratory issues
- **Boosts productivity** and improves mental well-being
- **Creates a positive work environment**
- Prevents accidents due to slippery floors or clutter

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4. Office Ergonomics

Ergonomics is designing the workplace to **fit the worker** and prevent strain or injury.

Key Tips:

- Adjust **chair and desk height**
- Keep monitor at **eye level**
- Use chairs with **proper back support**
- Place keyboard and mouse at comfortable angles
- Avoid sitting in the **same position for long**

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5. Computer Health and Safety Tips

Common Musculoskeletal Problems

- Back pain
- Neck pain
- Wrist and shoulder issues

Tips to Avoid These Problems:

- Take **frequent breaks**
- Use an **ergonomic chair**
- Keep feet flat on the floor
- Keep wrists straight while typing
- Stretch regularly

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6. Occupational Overuse Syndrome (OOS)

Continuous use of computer or repetitive movements can lead to **OOS** – a group of physical issues.

Problem	Cause
Strain in Legs and Feet	Poor sitting posture
Eye Strain	Staring at screen for long hours
Headaches	Improper lighting or monitor brightness
Obesity	Lack of movement or exercise
Stress Disorders	Overworking and poor work-life balance
Injuries from Laptop Use	Bending neck or back, improper setup
Sleeping Problems	Excessive screen time affecting sleep

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7. Health and Safety Requirements for Computer Workplace

Component	Safety Requirement
Display Screen	Keep it at **eye level**, avoid glare, adjust brightness
Keyboard	Keep wrists straight and aligned with elbows
Work Surface	Spacious enough for documents, mouse, keyboard
Work Chair	Adjustable height, lumbar (lower back) support
Space Requirements	Enough room for free movement and leg space
Lighting	Proper lighting to avoid **eye strain** and **reflections**
Reflections & Glare	Use anti-glare screens or adjust monitor position
Noise & Heat	Avoid noisy equipment; ensure fans or ACs keep room temperature comfortable

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8. Cautions While Working on the Computer

- Avoid **loose cables and cords** – they can cause tripping
- Do not **overload power sockets**
- Keep **liquids away** from electronics
- Take **short breaks** to relax eyes and muscles
- Keep **posture upright**, feet flat, and screen at a safe distance